

Step 1: Raw material (Copper Panel)



FIG. 1A

Step 2: Both side partial etch

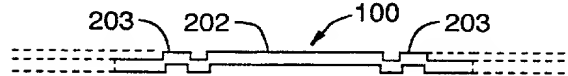


FIG. 1B

Step 3: Full Ni / Pd plating

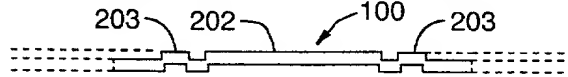


FIG. 1C

Step 4: Assembly (D / A, W / B and Molding)

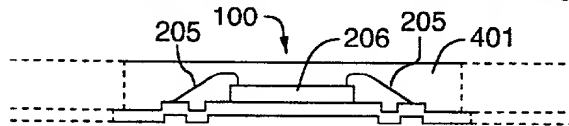


FIG. 1D

Step 5: Photo-resist (wet film) printing and curing (development)

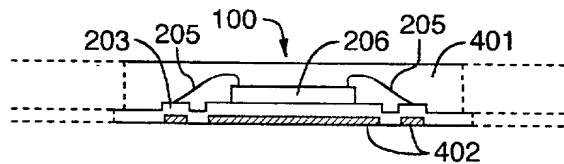


FIG. 1E

Step 6: Final etching

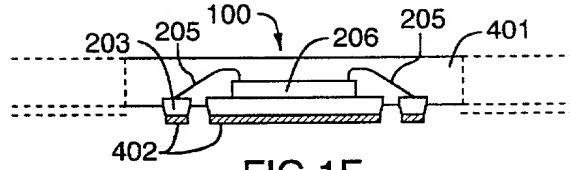


FIG.1F

Step 6.1: Stripping

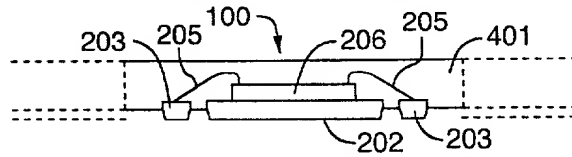


FIG.1G

Step 7: Electroless gold plating

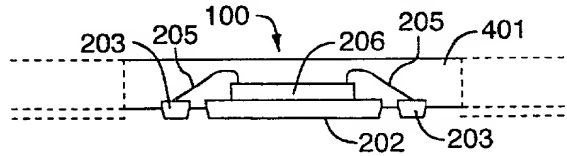


FIG.1H

Step 8: Singulation (sawing or punching)

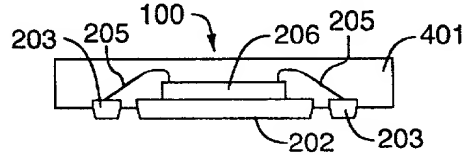


FIG.1I

Step 1: Raw material (Copper Panel)

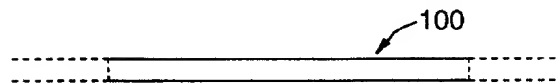


FIG. 2A

Step 2: Both side partial etch (Mirror image)



FIG. 2B

Step 3: Full Ni / Pd or Ag plating

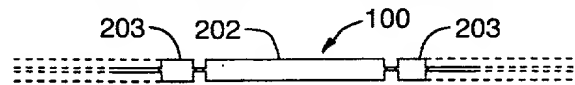


FIG. 2C

Step 4: Assembly (D / A, W / B and Molding)

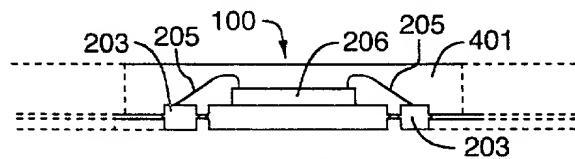


FIG. 2D

Step 5: Final etching

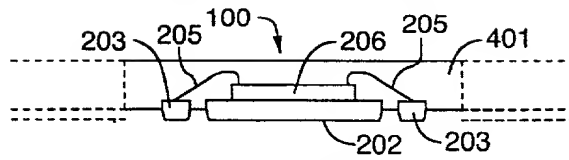


FIG.2E

Step 6: Electroless gold plating

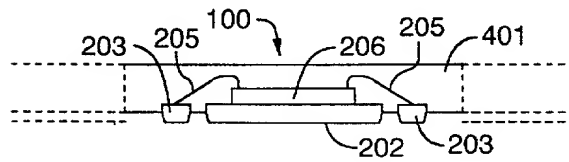


FIG.2F

Step 7: Singulation (sawing or punching)

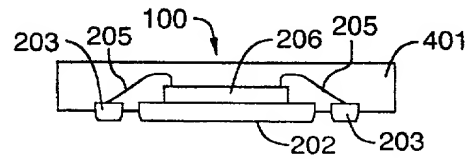


FIG.2G

Step 1: Raw material (Copper Panel)

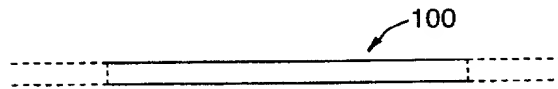


FIG. 3A

Step 2: Top side partial etch

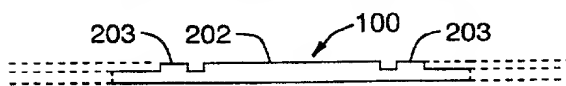


FIG. 3B

Step 3: Full Ni / or Ag plating

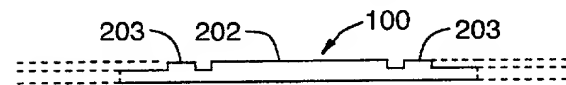


FIG. 3C

Step 4: Assembly (D / A, W / B and Molding)

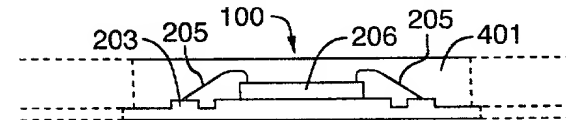


FIG. 3D

Step 5: Final etching

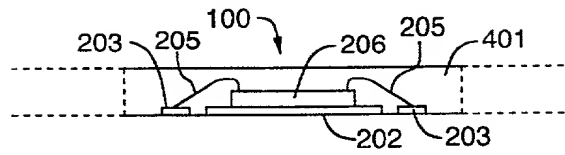


FIG.3E

Step 6: Electroless gold plating

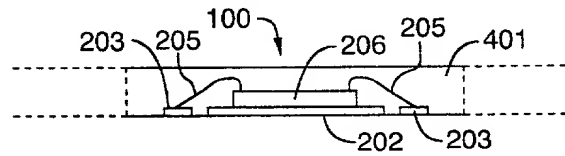


FIG.3F

Step 7: Solder ball attachment (optional)

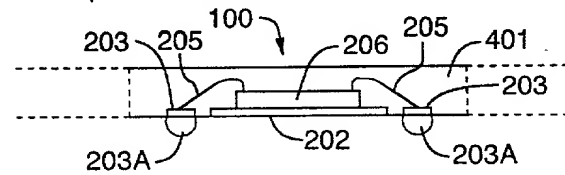


FIG.3G

Step 8: Singulation (sawing or punching)

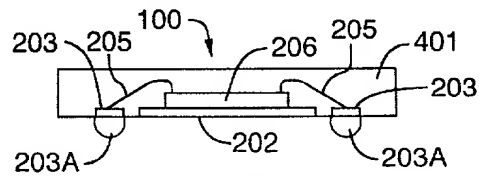


FIG.3H

Step 1: Raw material (Copper Panel)

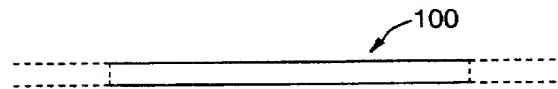


FIG. 4A

Step 2: Top side partial etch

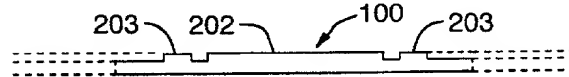


FIG. 4B

Step 3: Full Ni / or Ag plating



FIG. 4C

Step 4: Assembly (D / A, W / B and Molding)

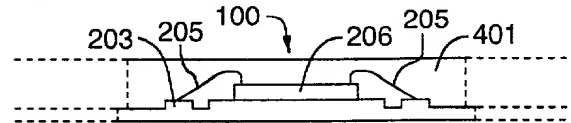


FIG. 4D

Step 5: Photo-resist application, exposure, and developing

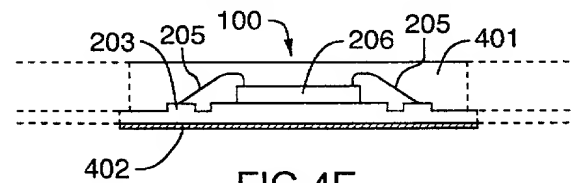


FIG. 4E

Note : Dry film laminating or Wet-film spin coating

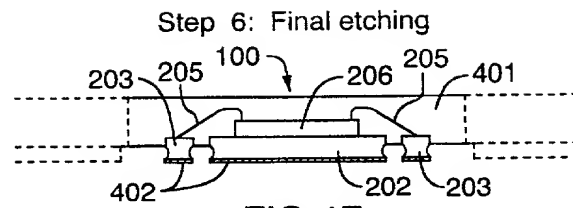


FIG.4F

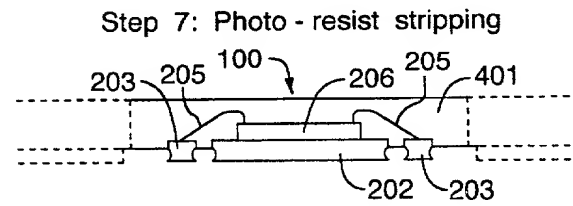


FIG.4G

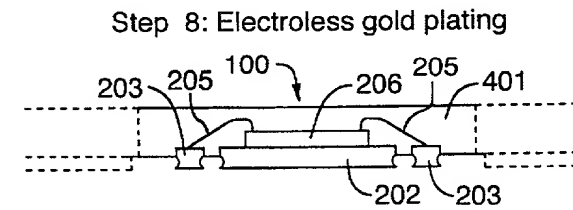


FIG.4H

Step 8: Singulation (sawing or punching)

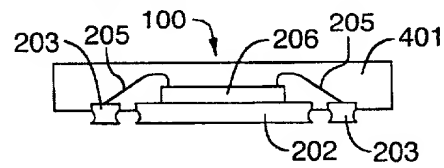


FIG.4I

Step 1: Raw material (Copper Panel)



FIG. 5A

Step 2: Photo resist lamination and development



FIG. 5B

Step 3: Cu/Ni/Au electrolytic plat up for "1st level connect"



FIG. 5C

Step 4: Stripping

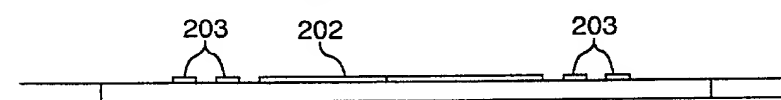


FIG. 5D

Step 5: -ve photo-resist lamination and development

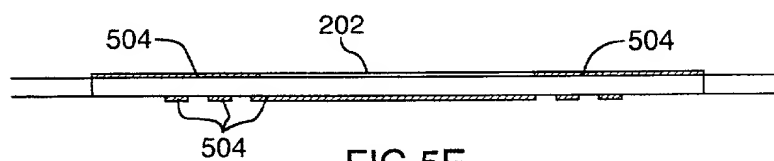


FIG. 5E

Step 7: Stripping and clearing

A cross-sectional view of a substrate 100. The substrate has a thin layer 100 on its top surface. There are openings 202 in the substrate. Contacts 203 are formed on the top surface of the substrate, partially covering the thin layer 100 and the openings 202.

FIG.5G

FIG.5H

A cross-sectional diagram of a railway track. It shows two parallel tracks with rails and sleepers. Between the tracks, there is a central drainage ditch or gutter. The diagram is labeled with 'a' and 'b' at the ends, indicating a specific section or detail.

FIG.51

FIG.5J

Step 1: Raw material (Copper Panel)

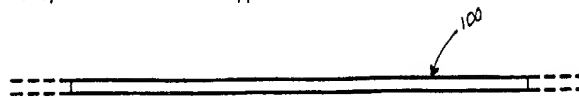


Figure 6A

Step 2: Masking for plat-up process



Figure 6B

Step 3: Plat up for '1st level connect'

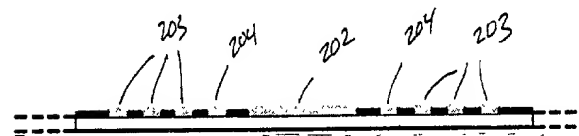


Figure 6C

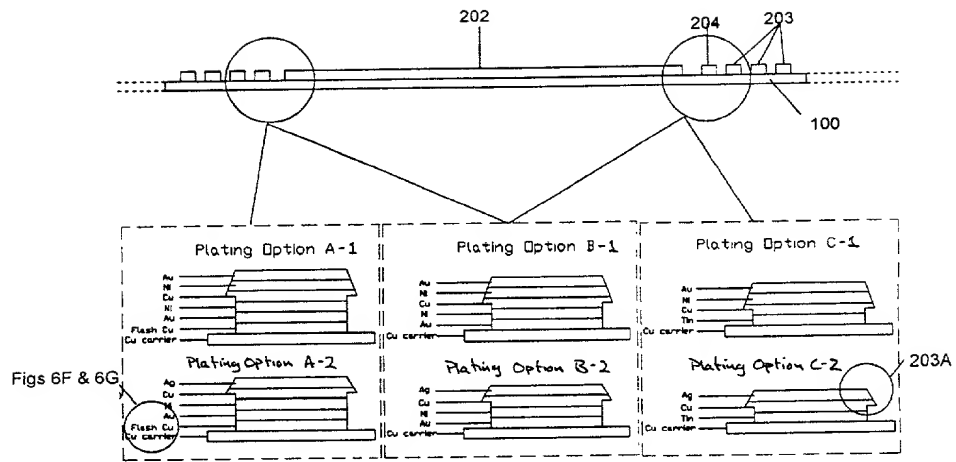


Figure 6D

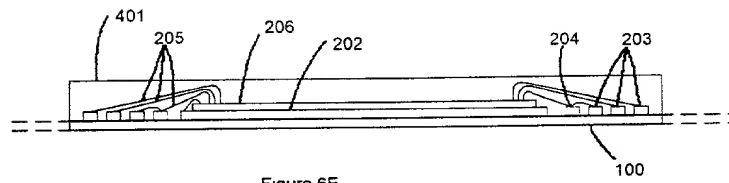


Figure 6E

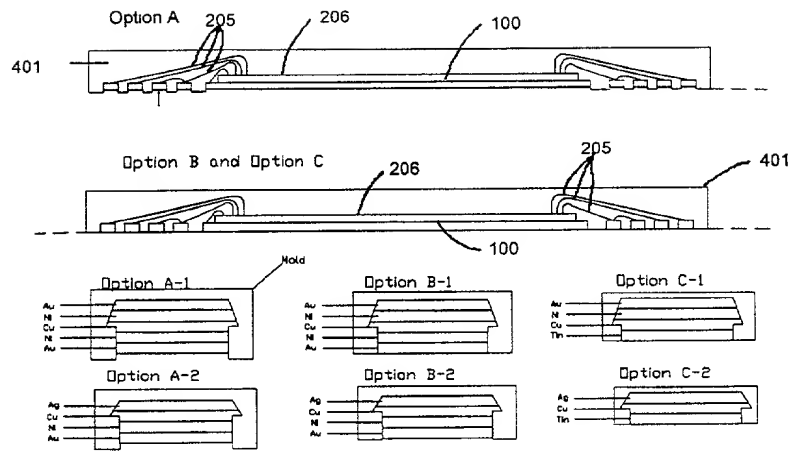


Figure 6F

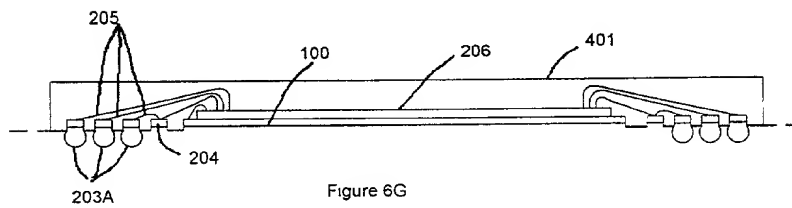


Figure 6G

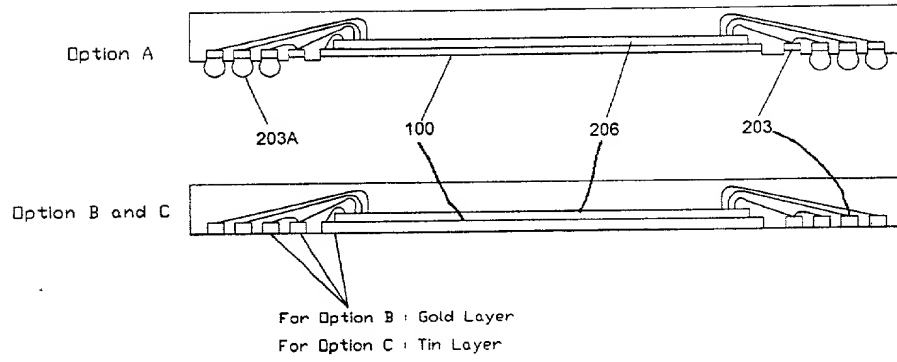
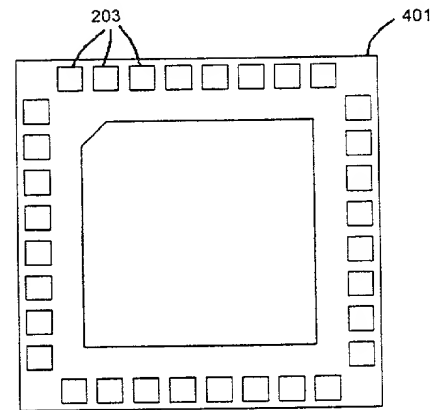


Figure 6H



PERIPHERAL TYPE (SINGLE ROW)

Figure 7

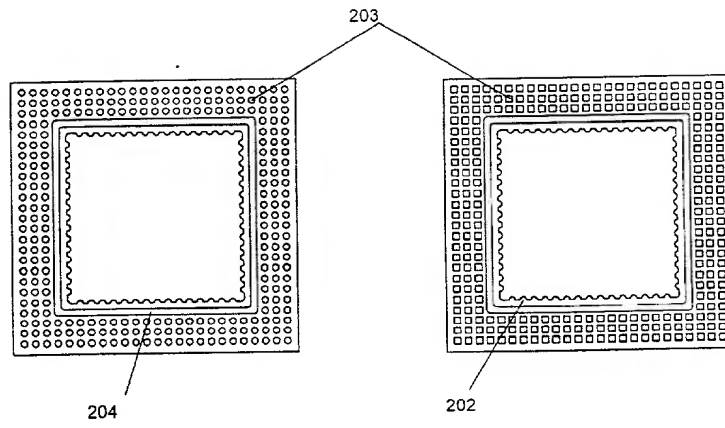


Figure 8A

Figure 8B

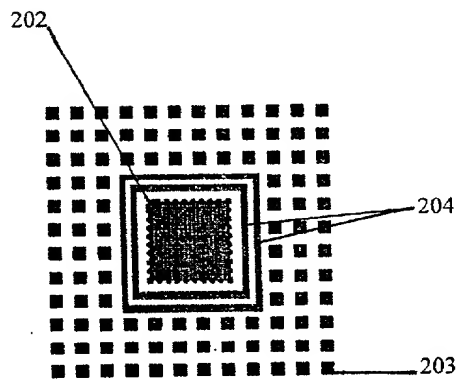


Figure 9